

High Reliability 2.0-inch 5mm 5x7 Dot Matrix LED Displays

SDM-5570 SDM-5577

GENERAL DESCRIPTION

The SMD-5570 and the SMD-5577 series are an epoxy molded 2.0 inch (50.8mm) height, 5mm diameter and 5x7 dot matrix LED displays. The standard units are available in red, orange and yellow-green emitting colors.

PACKAGE DIMENSIONS

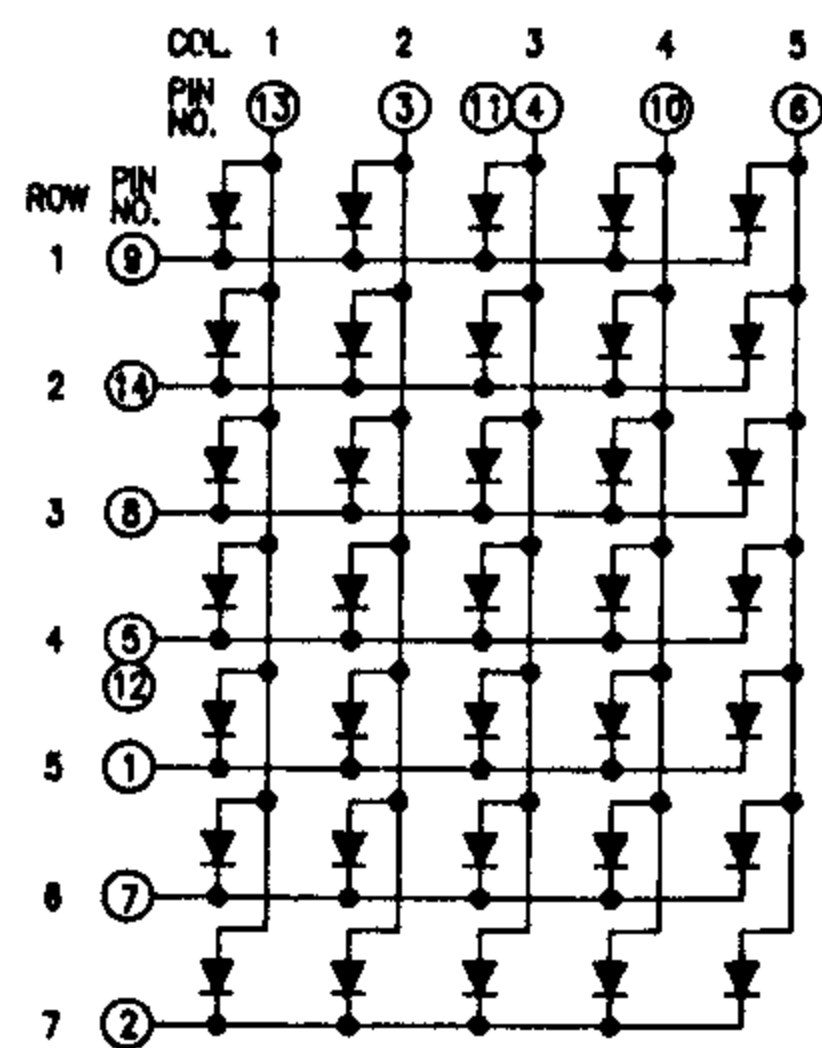
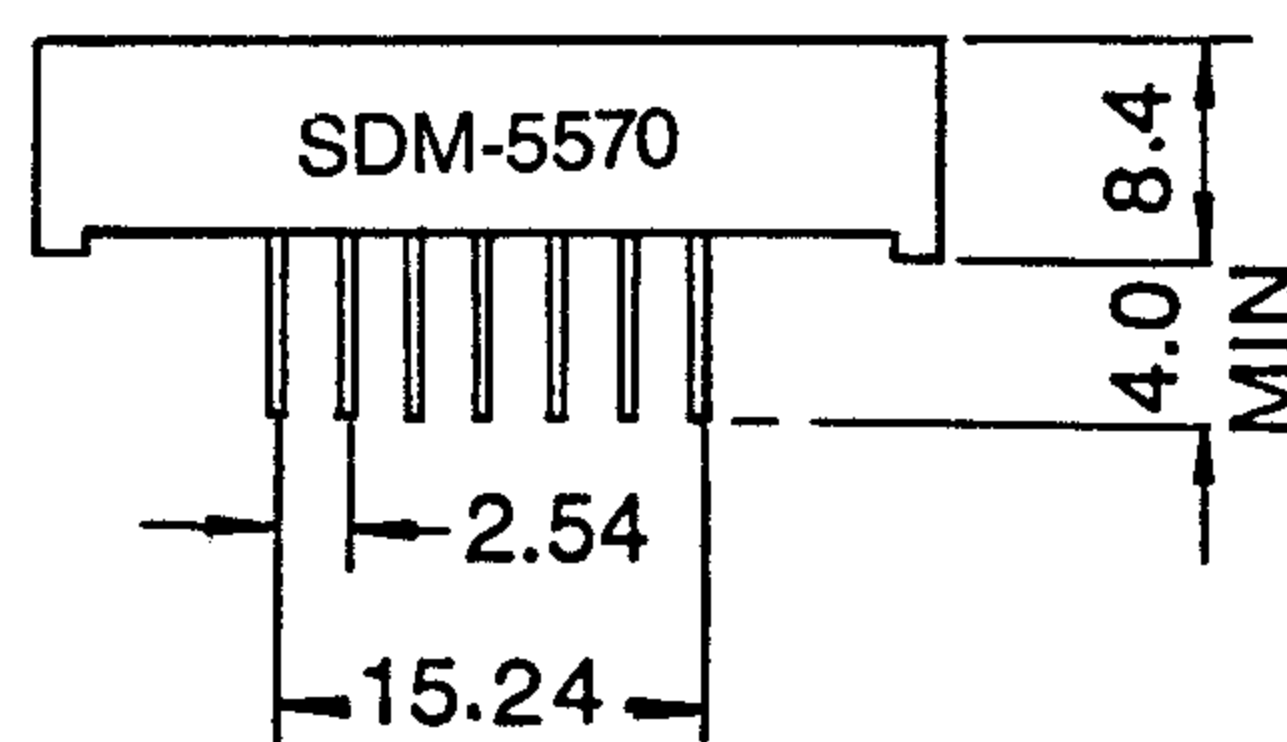
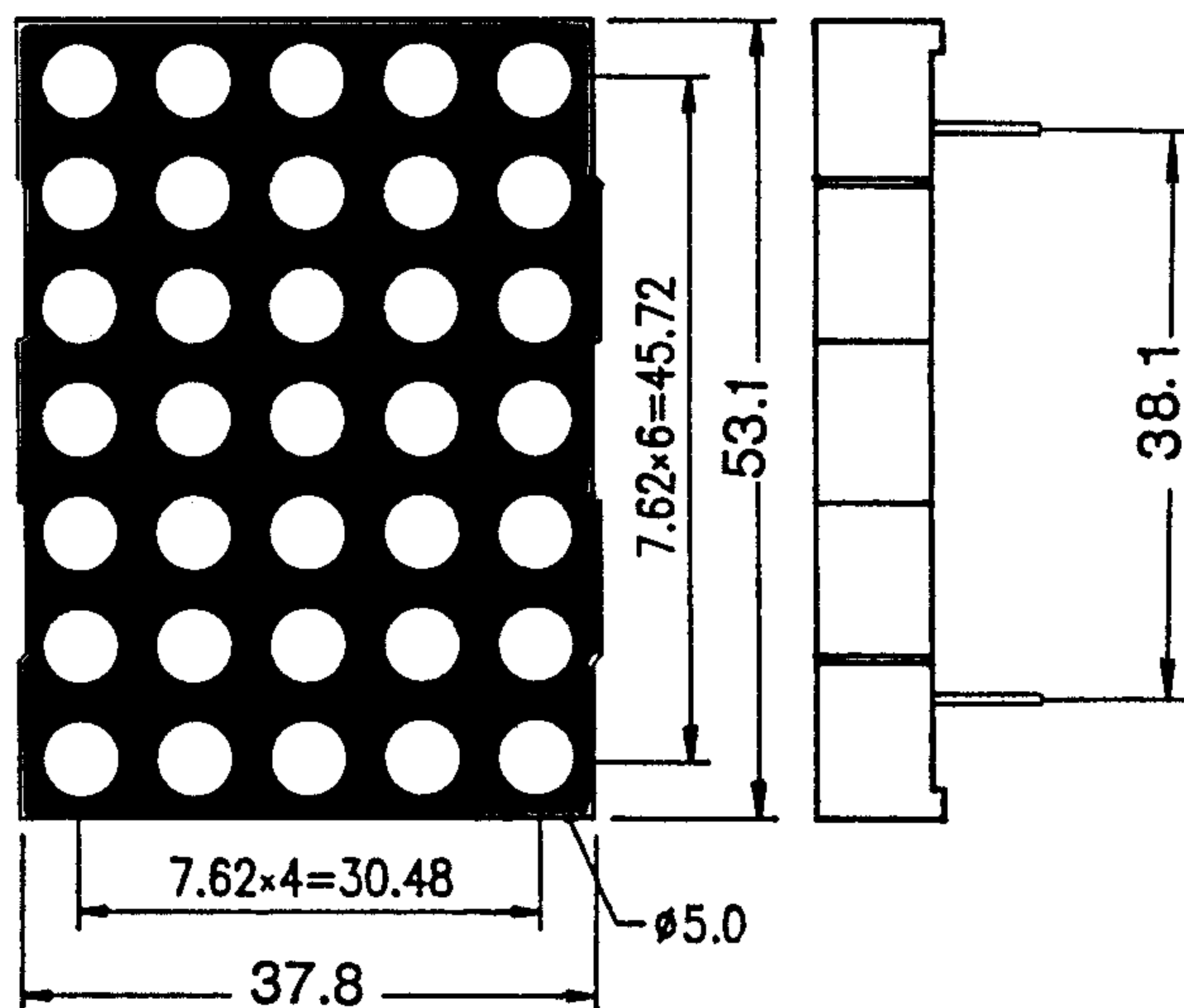
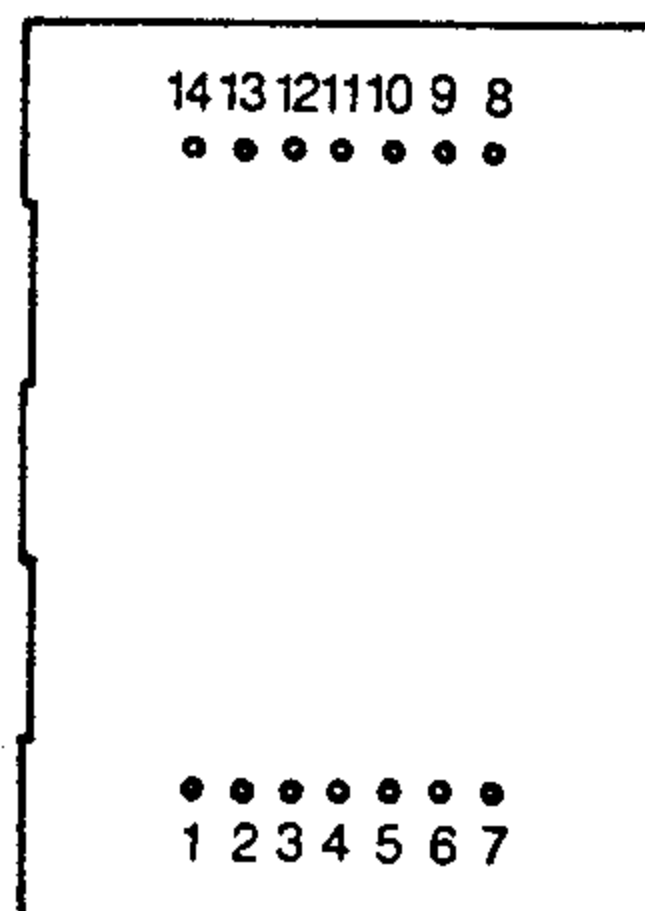
SCALE 1:1 (mm)

FEATURES

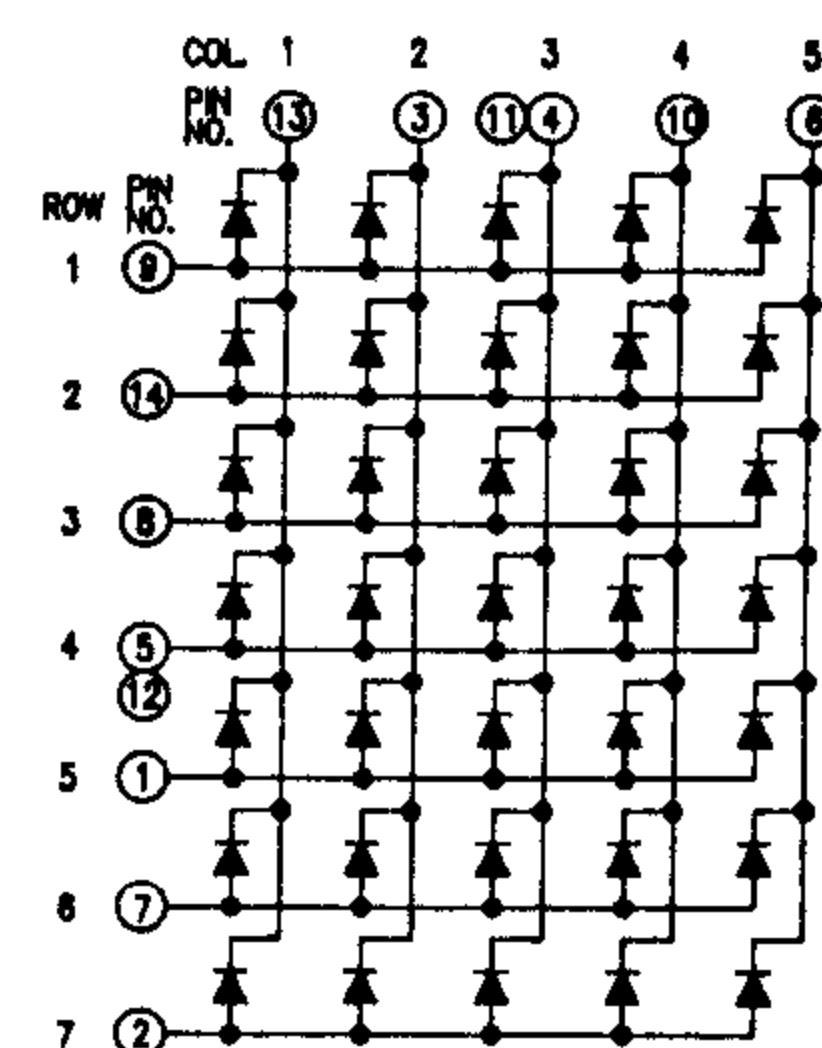
1. High brightness with high contrast
2. Wide angle viewing
3. Low power consumption;
Directly drive with I.C
4. Solid state reliability
Long operation life
5. Cathode- row (SDM5570) and cathode column (SDM5577) types available

PIN ARRANGEMENTS

(Top View)



SDM-5570 (Cathode row)



SDM-5577 (Cathode column)

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Red SDM 5570/5577UR (GaAlAs)Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Power dissipation/Total	1400	mW
Power dissipation/Dot	30	mW
Forward current	15	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	°C
Storage temperature	-55 ~ +100	°C

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Dot	V_F	$I_F = 10\text{mA}$	—	1.9	2.1	V
Reverse current/Dot	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/Dot	I_V	$I_F = 10\text{mA}$	1300	2500	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	660	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	20	—	nm

Orange SDM 5570/5577SR (GaAsP/GaP)Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Power dissipation/Total	1400	mW
Power dissipation/Dot	30	mW
Forward current	15	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	°C
Storage temperature	-55 ~ +100	°C

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Dot	V_F	$I_F = 10\text{mA}$	—	2.0	2.2	V
Reverse current/Dot	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/Dot	I_V	$I_F = 10\text{mA}$	500	1000	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	635	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	35	—	nm

Yellow-green SDM 5570/5577UG (GaP)Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Power dissipation/Total	1400	mW
Power dissipation/Dot	30	mW
Forward current	15	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	°C
Storage temperature	-55 ~ +100	°C

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Dot	V_F	$I_F = 10\text{mA}$	—	2.1	2.3	V
Reverse current/Dot	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/Dot	I_V	$I_F = 10\text{mA}$	600	1200	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	565	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	30	—	nm

* Pulse Width 1 ms
 Duty Cycle 1/5